

## ABSTRACT OF THE DISCLOSURE

An internal condition of a concrete structure is objectively evaluated irrespective of surrounding noise or the shape of a hammer, by placing a vibration sensor in direct contact with a measuring surface so as to directly convert a vibration generated on the measuring surface into a corresponding voltage without the intervention of a medium such as air thereby to quantify the vibration generated on the measuring surface concerned. A structure diagnosis apparatus of the present invention includes a vibration unit for generating an elastic wave in a measuring object of a concrete structure, a vibration detector adapted to be placed in contact with a surface of the measuring object for detecting a component in a predetermined frequency range of an elastic vibration generated on the surface of the measuring object by the vibration unit; and a display device for displaying a maximum amplitude of an output signal of the vibration detector.